Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia	NDS 143, 1 (2017)	31-Mar-2017

Q(β^-)=3160 *40*; S(n)=6710 *80*; S(p)=7870 *SY*; Q(α)=−830 *SY* 2017Wa10
ΔS(p)=200 (syst), ΔQ(α)=200 (2017Wa10).
^{193}Re was produced by fragmentation of a ^{197}Au beam (E=187 GeV) (1999Be63), and a ^{208}Pb beam (E=208 GeV) (2005Ca02) on beryllium targets. ^{193}Re was identified with the GSI Fragment Separator.

^{193}Re Levels

Cross Reference (XREF) Flags

A ^{9}Be(^{208}Pb,Xγ)

E(level)	J$^\pi$ †	$T_{1/2}$	XREF	Comments
0+x	(5/2$^+$)		A	
146.1+x *3*	(9/2$^-$)	69 μs *8*	A	$T_{1/2}$: From (^{208}Pb,Xγ).

† Proposed in 2011St21, based on systematics of ^{187,189}Re g.s., low lying 9/2$^-$ state, and BCS calculations.

γ(^{193}Re)

E_i(level)	J^π_i	E_γ	I_γ	E_f	J^π_f	Mult.	α †	Comments
146.1+x	(9/2$^-$)	146.1 *3*	100	0+x	(5/2$^+$)	[M2]	11.42 *19*	B(M2)(W.u.)=0.0163 *20*

† Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

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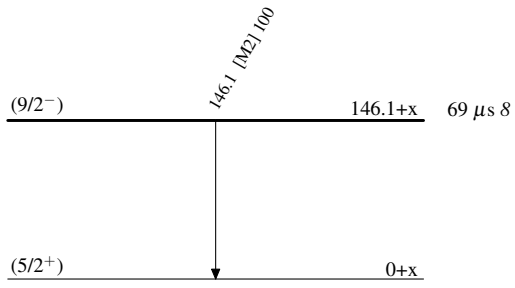
Level Scheme

Intensities: Relative photon branching from each level



$^{193}_{75}Re_{118}$